Wave of US plant retirements likely approaching; IPPs particularly exposed

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For Americans wringing their hands over increasing power prices due to growing demand and shrinking reserve capacity margins, the last thing they probably want to hear is that a wave of power plant retirements may be upon the country soon. However, an April 23 report by Sanford C. Bernstein & Co. LLC analyst Hugh Wynne studying past power plant retirements and the comparable characteristics of currently operating plants to those retired plants, concluded that the United States may be in line to retire 228,000 MW of capacity in the next 10 years. The report showed the average coal-fired plant was retired after 49 years, with the bulk being retired after 31 years to 60 years; the average natural gas-fired plant, excluding combined-cycle gas turbine plants, was retired after 40 years, with the bulk retired after 21 to 50 years; and the average oil-fired plant was retired after 41 years, with the bulk retired after 21 to 60 years.

Where that leads to trouble, Wynne said, is that about 228,000 MW, or 22%, of the nation's total generating capacity will approach those average retirement ages in the next 10 years. About 86,300 MW, or 28%, of the nation's coal plant capacity; about 96,300 MW, or 46%, of gas plant capacity; and almost 45,000 MW, or 70%, of oil plant capacity will reach average retirement age.

Because most combined-cycle gas-fired plants and wind-generating plants were built in the last 10 years, Wynne said essentially none of those classes of plants were in danger of being retired in the next 10 years. Additionally, although many nuclear facilities are reaching the end of their original 40-year operating licenses, Wynne said the Nuclear Regulatory Commission has yet to deny an application for license renewal to an existing nuclear power plant and, thus, does not foresee major retirements of nuclear capacity in the next 10 years. While the need to retire 22% of the nation's generating capacity could have a tremendous impact on power prices and utility rates, Wynne dug deeper to determine the retirement wave might not be so harsh.

Many power companies have spent millions, if not more, on SO2 and NOx emissions control technology in the past 20 years, often on plants reaching and passing average retirement ages, and Wynne said no coal-fired plants with the technology have been retired in the last 20 years. Wynne said smaller numbers of oil- and natural gas-fired plants had been retired compared to plants without the emissions control technology. "Given the high cost of installing SO2 and NOx emissions controls, utilities likely have focused such investments only on units whose remaining useful life and attractive operating economics render retirement unlikely over the short to medium term," Wynne wrote. Assuming companies have an incentive not to retire plants with expensive emissions controls, Wynne said only 92,607 MW, or 9%, of the nation's total generating

capacity fits the mold for retirement in the next 10 years. Almost 39,200 MW, or 12%, of the country's coal plants; about 27,300 MW, or 13%, of non-combined-cycle gas plants; and about 26,100 MW, or 40%, of oil plants will reach their average retirement age and are not equipped with emissions controls. For more on this story, go to www.snl.com, subscription required.